ELEMENT 2.1

ENVIRONMENTAL ASPECTS AND IMPACTS

The fundamental purpose of the EMS is to control and reduce the environmental impacts of your facility's processes and products. For this reason, a critical element of the EMS involves identifying and prioritizing the environmental aspects and impacts associated with your facility. **An environmental aspect is an element of an organizations activities, products, or services that can interact with the environment.** For example, chrome plating is a metal finishing activity and an associated aspect is chrome air emissions. This aspect may have an **impact** on the environment in several ways, for example, ambient air quality degradation.

The environmental aspects and impacts of your metal finishing operations can be identified, prioritized, and documented in several ways. **This Template includes two approaches, either of which can be used during EMS implementation.** Use the approach that works best for your circumstances. This process is important because high-priority environmental aspects and impacts will be considered when environmental objectives and targets are established.

Aspects and Impacts Form A -- The first approach uses the experience and judgment of employees familiar with facility processes to identify the top five environmental issues currently facing the facility. These issues and their specific aspects and impacts should be summarized using Aspects and Impacts Form A.

Aspects and Impacts Form B -- The second approach uses detailed, structured matrices to list and prioritize environmental aspects and impacts according to the following categories:

- Environmental Aspects and Impacts: Wastewater and Stormwater
- Environmental Aspects and Impacts: Air Emissions
- Environmental Aspects and Impacts: Hazardous and Solid Waste
- Environmental Aspects and Impacts: Raw Materials Consumption
- Environmental Aspects and Impacts: Water and Energy Consumption

The matrices that comprise Form B will help facility staff identify and document environmental aspects and impacts on a per media basis. The matrices also provide criteria for prioritizing environmental aspects and impacts; this process is important because high-priority environmental aspects and impacts will be considered when environmental objectives and targets are established. One possible way to prioritize environmental aspects and impacts using Form B is described as follows:

Step 1:

For each aspect and impact, score each prioritization criterion on a scale from 1 to 5, where 1 indicates the criterion is very important or relevant to that aspect (for example, the aspect is strictly regulated, is the subject of compliance violations, or is a waste generated in large quantities), and 5 indicates the criterion is relatively unimportant or irrelevant to that aspect (for example, the aspect is an unregulated waste, is generated infrequently, and is inexpensive to manage).

Each environmental aspect and impact form is designed to document the source of each aspect, which should encourage you to consider source reduction (pollution prevention) strategies for mitigating the aspect and its impact.

Step 2:

Add the scores of all criteria for each aspect and write the total in the right-most column of the form. This number indicates the relative priority of the aspect compared to other aspects and impacts in the same category. The lower the total score, the higher the priority.

	EMS Procedure	**2.1**
	Effective Date	
Company Name	Subject	**Environmental Aspects and Impacts**

Purpose This procedure is used to identify, document, and update the environmental aspects and impacts of facility processes and operations.

Step 1 The environmental manager and other facility personnel selected by the environmental manager are responsible for identifying and prioritizing the environmental aspects and impacts of facility operations during EMS planning and development. PT-1

Environmental aspects are characteristics of facility processes and products that interact with the environment. Only environmental aspects the company can ISO-1 control or influence will be considered.

Environmental impacts are the effects of an organization's activities, products or services on the environment.

Step 2 Environmental aspects and impacts will be documented and prioritized. Environmental aspects and impacts will be associated with the following categories:

- Wastewater and stormwater
- Air emissions
- Hazardous and solid waste
- Raw materials consumption
- Water and energy consumption

High-priority environmental aspects and impacts will be considered when environmental objectives and targets are set.

Step 3 The environmental manager and other facility personnel will review and update the environmental aspects and impacts documentation annually. ISO-2

PT-1 **Add:** "While identifying and prioritizing aspects, the team should consider factors including legal and voluntary requirements, pollution prevention, and community concerns."

ISO-1 **Add:** "reasonably"

ISO-2 **Add: "Step 4** The facility shall consider the process for external communication related to its significant environmental aspects and record its decision."

Step 5 Decision-making and risk ranking documentation for aspects and impacts will be retained in accordance with the company or EMS-specific record retention policy.

Responsible Person:	_____
Signature and Date:	_____

TOP 5 ENVIRONMENTAL ASPECTS AND IMPACTS

Wastewater, Air Emissions, Hazardous and Solid Waste, Raw Materials, or Utility	Hazardous Constituents (if any)	Sources (indicate process line and tank)	Quantity and Cost (per month)	Current Management Practice	Rationale for Top 5
ex. Chrome-containing wastewater from chrome plating	Chrome	• 3 chromic acid tanks (rack line) • 1 chromic acid tank (barrel line)	200,000 gal/mo $4,000 mo	Treatment and discharge to POTW	• Discharge limit • Past violations
ex. PERC vapors from parts cleaning	Perchloroethylene	• Vapor degreasing tent	< 1 gal/mo cost is low	Engineering controls	• Worker exposure • AQMD regulation • Compliance burden
1.					
2.					
3.					
4.					
5.					

ENVIRONMENTAL ASPECTS AND IMPACTS: WASTEWATER

TYPE OF WASTEWATER	CONTAMINANTS	SOURCE(S) (indicate process line and tank number)	WEEKLY VOLUME (gallons) or FLOW RATE (gpm)	MANAGEMENT	DISCHARGED TO	PRIORITIZATION CRITERIA	PRIORITY (Sum of Scores)
☐ Chrome-containing	☐ Cr+6 ☐ Cr+3 ☐ Cr+6 & Cr+3			☐ Cr+6 reduction ❑ Sodium metabisulfite ❑ SO_2 ❑ Other:_____ ☐ Chemical precipitation ☐ Ion exchange	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ Cyanide-containing	Cyanide ☐ Cu ☐ Zn ☐ Cd ☐ Au ☐ Ag ☐ Brass (Cu & Zn)			☐ CN oxidation ☐ Sodium hypochlorite ☐ Chlorine gas ☐ Ozone ☐ Other:_____ ☐ Chemical precipitation ☐ Ion exchange	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ Acid or alkaline (no plating metals)				☐ pH adjustment ☐ Chemical precipitation ☐ Ion exchange	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ Non-cyanide metals-containing	☐ Cu ☐ Ni ☐ Zn ☐ Cd ☐ Au ☐ Ag ☐ Al ☐ Organic dyes			☐ pH adjustment ☐ Chemical precipitation ☐ Ion exchange	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ RO ☐ DI unit reject				☐ pH adjustment ☐ Chemical precipitation ☐ Ion exchange ☐ Direct discharge to sewer	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	

_____
Responsible Person

_____
Effective Date

ENVIRONMENTAL ASPECTS AND IMPACTS: WASTEWATER (Continued)

TYPE OF WASTEWATER	CONTAMINANTS	SOURCE(S) (indicate process line and tank number)	WEEKLY VOLUME (gallons) or FLOW RATE (gpm)	MANAGEMENT	DISCHARGED TO	PRIORITIZATION CRITERIA	PRIORITY (Sum of Scores)
☐ Spent cooling water				☐ Direct discharge to sewer ☐ Reused on site ☐ In rinse tanks ☐ Other _____	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ Laboratory wastewater and liquids					☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body ☐ Returned	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ Boiler blowdown				☐ Treated on site ☐ Discharged to sewer	☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body	_____Regulatory compliance _____Toxicity _____Quantity _____Process chemical costs _____Treatment costs	
☐ Cooling tower water					☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body		
☐ Air scrubber					☐ POTW ☐ Domestic sewer ☐ Stormwater sewer ☐ Surface water body		

_____
Responsible Person

_____
Effective Date

ENVIRONMENTAL ASPECTS AND IMPACTS: HAZARDOUS AND SOLID WASTE

TYPE OF WASTE	SOURCE	QUANTITY	HAZARDOUS CONSTITUENTS	ON-SITE MANAGEMENT	DISPOSAL	PRIORITIZATION CRITERIA	PRIORITY (Sum of Scores)
☐ Wastewater Treatment Sludge	☐ WWTS ☐ Batch ☐ Continuous ☐ Other _____	_____tons/mo	☐ Cr ☐ Cu ☐ Ni ☐ Zn ☐ Cd ☐ Au ☐ Ag	☐ Rolloff bins ☐ Drum ☐ Sacks	☐ Hazardous waste landfill ☐ Special waste landfill ☐ Recycling facility	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Spent Process Baths		_____gal/mo	☐ Cr ☐ Cu ☐ Ni ☐ Zn ☐ Cd ☐ Au ☐ Ag ☐ CN	☐ Drums ☐ Tanks ☐ On-site treatment	☐ Recycling facility ☐ Hazardous waste treatment facility ☐ POTW	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Spent IX Resins				☐ Drums ☐ Dumpster	☐ Recycler ☐ Other	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Filter Media ☐ Cartridges ☐ Loose Media ☐ Bag Filters				☐ Drums ☐ Dumpster ☐ Sacks	☐ HW landfill ☐ Incinerator ☐ SW landfill	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Waste PPE	☐ Gloves ☐ Masks ☐ Boots ☐ Aprons ☐ Other	_____drums/mo		☐ Drums ☐ Dumpster	☐ HW landfill ☐ Incinerator ☐ SW landfill	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	

_____
Responsible Person

_____
Effective Date

ENVIRONMENTAL ASPECTS AND IMPACTS: HAZARDOUS AND SOLID WASTE (Continued)

TYPE OF WASTE	SOURCE	QUANTITY	HAZARDOUS CONSTITUENTS	ON-SITE MANAGEMENT	DISPOSAL	PRIORITIZATION CRITERIA	PRIORITY (Sum of Scores)
☐ Waste Masking				☐ Drums ☐ Trash can	☐ HW landfill ☐ Incinerator ☐ SW landfill	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Rags / Wipes				☐ Drums ☐ Dumpster	☐ Industrial Laundry ☐ HW landfill ☐ SW landfill	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Spent Solvents ☐ Liquid ☐ Still bottoms				☐ Drums	☐ Recycling Facility ☐ Incinerator	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
Absorbent ☐ Pads ☐ Loose				☐ Drums	☐ HW Landfill		
☐ Waste Packaging ☐ Cardboard ☐ Pallets ☐ Wrapping				☐ Trash can ☐ Dumpster ☐ Pile	☐ SW landfill ☐ Recycled	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Aluminum	☐ Employees	_____/mo		☐ Trash can ☐ Dumpster ☐ Dedicated container	☐ SW landfill ☐ Recycled	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Paper	☐ Office	_____/mo		☐ Trash can ☐ Dumpster	☐ SW landfill ☐ Recycled	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	
☐ Copper Wire				☐ Dedicated container	☐ Recycled	_____Regulatory compliance _____Toxicity _____Quantity _____Disposal cost	

ENVIRONMENTAL ASPECTS AND IMPACTS: AIR EMISSIONS

EMISSION TYPE	SOURCE(S) (indicate process line and tank number)	TANK SURFACE AREA (ft^2)	MANAGEMENT	PRIORITIZATION CRITERIA (1 = high, 5 = low)	PRIORITY (Sum of scores)
Chrome Plating ☐ Cr+6 ☐ Cr+3			☐ Scrubbers ☐ Balls ☐ Demisters ☐ None ☐ Surfactant ☐ Foam	_____Regulatory compliance _____Toxicity _____Emission control costs _____Worker exposure	
Solvent: Controlled ☐ Trichlorethane ☐ Perchoroethylene ☐ Mineral spirits			☐ Chiller ☐ Unit cover ☐ Distillation ☐ Increased Freeboard	_____Regulatory compliance _____Toxicity _____Emission control _____Worker exposure	
Solvent: Uncontrolled ☐ Acetone ☐ Other:			☐ Venting ☐ None	_____Regulatory compliance _____Toxicity _____Emission control _____Worker exposure	
Acid Vapors ☐ HCl ☐ H_2SO_4 ☐ HNO_3 ☐ Mixed			☐ Scrubber ☐ Uncontrolled	_____Regulatory compliance _____Toxicity _____Emission control costs _____Worker exposure	
Alkaline Vapors ☐ _____ ☐ _____ ☐ _____			☐ Venting ☐ None ☐ Fume Suppressant	_____Regulatory compliance _____Toxicity _____Emission control costs _____Worker exposure	
☐ Water vapor and trace metals	Evaporator		☐ Condensers ☐ None	_____Regulatory compliance _____Toxicity _____Emission control costs _____Worker exposure	
☐ Water vapor, particulates, and trace metals	Sludge dryer		☐ Particulate removal:_____ _____ ☐ None	_____Regulatory compliance _____Toxicity _____Emission control costs _____Worker exposure	
☐ Engine exhaust	Delivery Vehicles		☐ Maintenance ☐ Other ☐ None	_____Regulatory compliance _____Toxicity _____Emission control costs _____Worker exposure	

_____
Responsible Person

_____
Effective Date

ENVIRONMENTAL ASPECTS AND IMPACTS: RAW MATERIALS

RAW MATERIAL OR RESOURCE	ANNUAL COST ($/year)	ANNUAL QUANTITY USED (gallons or pounds)	PRIORITIZATION CRITERIA (1 = High, 5 = Low)	PRIORITY (Sum of Scores)
1.			_____Regulatory compliance _____ Toxicity _____ Quantity _____ Cost _____ Difficult to treat	
2.			_____Regulatory compliance _____ Toxicity _____ Quantity _____ Cost _____ Difficult to treat	
3.			_____Regulatory compliance _____ Toxicity _____ Quantity _____ Cost _____ Difficult to treat	
4.			_____Regulatory compliance _____ Toxicity _____ Quantity _____ Cost _____ Difficult to treat	
5.			_____Regulatory compliance _____ Toxicity _____ Quantity _____ Cost _____ Difficult to treat	
6.			_____Regulatory compliance _____ Toxicity _____ Quantity _____ Cost _____ Difficult to treat	

_____
Responsible Person

_____
Effective Date

ENVIRONMENTAL ASPECTS AND IMPACTS: WATER AND ENERGY

RESOURCE	USE	QUANTITY	PRIORITIZATION CRITERIA	PRIORITY (Sum of Scores)
Water	☐ Process water	_____ gallons/month	_____ Quantity _____ Cost	
	☐ DI	_____ gallons/month		
	☐ RO	_____ gallons/month		
	☐ Sanitary	_____ gallons/month		
	☐ Irrigation	_____ gallons/month		
Electricity	☐ Plating rectifiers ☐ Equipment operation ☐ Facility lighting ☐ Process bath heating	_____ kW-hr/month	_____ Quantity _____ Cost	
Gas	☐ Heat process baths ☐ Building heating ☐ Boiler ☐ Oven ☐ Degreaser ☐ Office heat	_____ cubic feet/month	_____ Quantity _____ Cost	

_____
Responsible Person

_____
Effective Date

ELEMENT 2.2

COMPLIANCE

All EMSs must, at a minimum, address compliance with applicable environmental regulations [ISO/PT-1]. Because metal finishing operations generate a variety of wastes in many forms (wastewater, air emissions, sludge, spent process baths, etc.) it is especially critical that companies develop and implement a structured, comprehensive approach to compliance. Costs of noncompliance (in terms of penalties and public image and customer relations) can have a significant effect on profits and long-term competitiveness.

To be in compliance with the laws and regulations that apply to your company and its operations, you must (1) *know what the regulations are* and (2) *implement procedures and install equipment to comply with those regulations*.

Changes in compliance requirements might require you to modify your environmental objectives or other elements of your EMS. By anticipating new requirements, you may be able to minimize future compliance obligations through process changes. Therefore, it's important to (1) identify and use information and assistance sources such as guidance documents, technical contacts at pertinent regulating agencies (such as the publicly owned treatment works [POTW] and the Bay Area Air Quality Management District [BAAQMD], if applicable), (2) maintain contact with local and national industry associations, and (3) commit to reviewing your compliance requirements at regular time intervals during the year.

Regulatory compliance requirements include:

- Federal requirements
- State and local requirements
- Permit conditions

Other environmental "requirements" might include: [PT-1]

- Customer-specific codes
- Standards in locations where you sell products
- International Chamber of Commerce (ICC)
- Charter for Sustainable Development
- Strategic Goals Program (SGP)
- Other industry codes or programs to which your organization voluntarily subscribes

Also, as you complete the process of cataloging compliance requirements, you should begin to identify "environmental metrics" that should be addressed in *Element 4.1, Measurement and Monitoring.*

The Template contains a procedure and several EMS tools to help you in identifying and meeting your compliance

[ISO/PT-1] **Add:** "and other voluntary commitments"

[PT-1] **Change from: "**Other environmental…:" **to:** "Voluntary Commitments:"]

requirements. Those tools are described below: ISO/PT-1

Environmental and Health & Safety Regulatory Compliance Checklist for Northern California. The Environmental and Health & Safety Regulatory Compliance Checklist (Checklist) contains an extensive, but not comprehensive, overview of a wide range of applicable federal, state, and local regulations that metal finishers in northern California commonly encounter. The Checklist is designed as an "office exercise" to identify any apparent weaknesses in your facility's current compliance approach and status. Gather a team of employees who have first-hand knowledge of the questions posed in the Checklist. Answer the questions honestly and precisely to create an accurate assessment of your company's compliance performance. References are provided for each question in the checklist and include the governing regulation, guidance documents, and other helpful resources. If your facility is located outside of California, you should assess state and local regulations to determine those that apply to your facility.

Commonly Applicable Federal Environmental Laws in the U.S. This list of Federal laws is an example of some of the laws that may apply to your facility. This list is not comprehensive, but is a good example of the information needed to determine applicability.

Compliance Calendar. The compliance calendar provides a summary of the Checklist organized around the frequency of completing and reporting requirements. With cross-references that point to relevant sections of the Checklist, the compliance calendar summarizes deadlines for requirements that must be completed daily, weekly, monthly, annually, or on a specific date.

Regulatory Agency Diagram. This tool is a one-page diagram of the regulatory framework that surrounds metal finishers in northern California. The diagram is a simplified representation of the various federal, state, and local regulatory agencies and the associated compliance areas. If your facility is located outside of California, check with your state and local authorities to determine the regulatory framework applicable to you.

ISO/PT-1 **Add: "Sample Worksheet for Identifying Legal Requirements.** The sample worksheet for Identifying Legal Requirements contains a list of the common Federal requirements that may affect your facility. Use this list as a basis for identifying those requirements that apply to your facility, and adjust as necessary."

Company Name	EMS Procedure	**2.2**
	Effective Date	
	Subject	**Compliance**

Purpose This procedure is used to (1) identify weaknesses in a company's current compliance status and performance, [ISO/PT-1] and (2) help the company become informed about and track compliance requirements. [ISO/PT-2]

Step 1 The environmental manager and other facility staff will complete the Environmental and Health & Safety Compliance Checklist in its entirety. The group tasked with completing the Checklist will, to the greatest degree possible, have first-hand knowledge of the answers given to each question.

Step 2 After working through the Checklist and worksheet, the environmental manager will prepare a list of potential objectives and targets related to compliance requirements or performance. The list will be used in completing Element 2.3, Objectives and Targets.

Step 3 The environmental manager will use the Compliance Calendar during day-to-day operations to assist in planning for and meeting the company's compliance requirements.

Step 4 The environmental manager or designee will stay informed of changing environmental regulations. This can be achieved by (check those that apply):

- ☐ Obtaining a Metal Finishing Guidance Manual and maintaining a subscription to receive updates
- ☐ Reviewing regulatory updates and the compliance calendar and attending compliance workshops offered by state and local regulatory agencies and the local Metal Finishing Association
- ☐ Using a consultant specializing in compliance issues
- ☐ Visiting Internet websites with compliance assistance content:

  http://www.nmfrc.org/ (National Metal Finishing Resource Center)

  http://www.epa.gov/sectors/metalfinishing/index.html

  http://www.finishing.com

[ISO/PT-1] **Change to:** "periodically evaluate compliance with relevant environmental legislation and regulations"

[ISO/PT-2] **Change to:** "identify and have access to legal and other requirements to which the organization subscribes."

Other _____

Step 5 The environmental manager or designee will complete the Checklist or worksheet at least every 6 months to identify new and existing weakness, and in response to new or changed environmental regulations.

Responsible Person:	_____
Signature and Date:	_____

Sample Worksheet for Identifying Legal Requirements

MEDIA OR REGULATORY ACT	PLANS/ PERMITS	SOURCES/ DISCHARGES	KNOWLEDGE OF REGULATIONS (Low, Med, High)	ASSOCIATED MANAGEMENT PROCEDURES
CAA				
CWA NPDES (outfalls and/or stormwater)				
RCRA Our Generator Status:				
SDWA (UIC)				
WETLANDS				
FIFRA				
EPCRA				
CERCLA or State Cleanup				
TSCA (PCBs)				
UST				
OTHERS (list as appropriate)				

Information Resources for Legal Requirements

Source	Description
EPA Web Site	Provides a variety of information of environmental laws and regulations as well as tools and compliance guidance. (http://www.epa.gov/).
EPA/RCRA/Superfund/EPCRA Hotline (1-800-424-9346/703-412-9810)	Questions regarding pollution prevention, source reduction, waste management, and disposal may be directed to this hotline. It is staffed by Booz Allen & Hamilton Inc., under contract to EPA. The Hotline answers factual questions about EPA regulations and programs under RCRA, Superfund, and EPCRA.
EPA Small Business Ombudsman (1-800-368-5888)	Regulatory explanations and guidance, research, case studies, contacts for additional information. Variety of hotlines available for particular statutes (such as RCRA). Internet access also available (http://www.epa.gov/sbo/).
Small Business Assistance Programs (various states) and Other State Agencies	Guidance on regulations and compliance issues. Initially these focused on Clean Air Act requirements, but they are expanding into other environmental media.
U.S. Small Business Administration	Various services available to small businesses in the U.S. (http://www.sba.gov/)
U.S. Government Printing Office (202-512-1800)	Federal Register published daily with all federal proposed and final rules. (Also available on line via *GPO Access*, search for GPO Access)
Trade and Professional Associations	Trade associations provide a variety of services related to environmental laws and regulations, including regulatory updates and training.
Counterpoint Publishing (1-800-998-4515)	CD-ROM and Internet dial-up access to legal / regulatory information for federal government and all 50 states, updated daily.
Bureau of National Affairs (1-800-372-1033)	Information on environmental, health and safety laws, regulations and activities at international, national and state level. Paper and electronic access available.
Thompson Publishing Group (1-800-677-3789)	Manuals on a variety of federal and state environmental programs with monthly updates and newsletters.
Business & Legal Reports, Inc. (1-800-727-5257)	Access to federal and state regulations with monthly, updates on available on CD-ROM.
Aspen Law and Business (1-800-638-8437)	Publishes compliance manuals with regular update service for Resource Conservation and Recovery Act and the Clean Air Act.

Commonly Applicable Federal Environmental Laws in the U.S.

Clean Air Act (CAA) [40 CFR Parts 50-99] • Title V air permits and/or follow the standards for hazardous air pollutants under the NESHAP • state air permits	Establishes ambient and source emission standards and permit requirements for conventional and hazardous air pollutants.
Clean Water Act (CWA) [40 CFR Parts 100-145, 220-232, 410-471]	Establishes ambient and point source effluent standards and permit requirements for water pollutants, including sources that discharge directly to a water body or to a public sewer system. Also includes storm water management requirements.
Resource Conservation and Recovery Act (RCRA) [40 CFR Parts 240-299]	Establishes regulations and permit requirements for hazardous waste management. Also, creates standards for underground storage tanks that hold oil or hazardous substances.
Toxic Substances Control Act (TSCA) [40 CFR Parts 700-799]	Regulates the use, development, manufacture, distribution and disposal of chemicals. Certain chemicals [such as polychlorinated biphenyls (PCBs)] are subject to specific management standards.
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as "Superfund") [40 CFR Parts 300-311]	Establishes a program for cleaning up contaminated waste sites and establishes liability for clean-up costs. Also, provides reporting requirements for releases of hazardous substances.
Emergency Planning and Community Right-To-Know Act (EPCRA) [40 CFR Parts 350-374]	Establishes a program (also known as the "Toxic Release Inventory") to inform the public about releases of hazardous and toxic chemicals. Reporting requirements apply to companies that use, process or store specific chemicals over specified quantities.
Hazardous Materials Transportation Act (HMTA) [49 CFR Parts 100-180]	Establishes standards for the safe transportation of hazardous materials.

Compliance Calendar

DAILY

Agency	Program	Program/ Question	Scheduled Task
Cal/OSHA	Injury & Illness Prevention Program	16/2	Safety Suggestion Box – check for new suggestions
DTSC	On-Site Hazardous Waste Treatment	10/7	Facility Inspection – check areas subject to spills, overfill control equipment, monitoring data, and uncovered tanks

WEEKLY

Agency	Program	Program/ Question	Scheduled Task
DTSC, RWQCB	On-site Hazardous Waste Treatment	10/7	Facility Inspection -- check containment, stored containers, and tanks

MONTHLY

Agency	Program	Program/ Question	Scheduled Task
Cal/OSHA	Injury & Illness Prevention Program Employee Training	16/ 26/7	Employee Training – conduct monthly safety meeting
Cal/OSHA	Injury & Illness Prevention Program	16/2	Safety Committee – conduct monthly safety committee meeting
RWQCB	Storm Water Pollution Prevention	15/6	Facility Inspection – conduct storm water discharge visual observation – check for presence of floating and suspended material, oil and grease, discoloration, turbidity, odor, and pollutants (monthly during wet season: Oct. 1 – May 31)

QUARTERLY

Agency	Program	Program/ Question	Scheduled Task
POTW	Industrial Wastewater Discharge	7/4	Periodic Report of Continued Compliance – submit quarterly discharge monitoring report to local sewer agency (Note: report submittal schedule may differ)
RWQCB	Storm Water Pollution Prevention	15/5	Facility Inspection – conduct non-storm water discharge visual observation – check for flow, debris, odor, and discoloration

ANNUALLY

Agency	Program	Program/ Question	Scheduled Task
CUPA or Local Agency	Hazardous Materials Business Plan	5/2	Submit annual update of Hazardous Materials Business Plan (HMBP) to CUPA or Local Agency
POTW	Industrial Wastewater Discharge	7/1	Industrial Discharge Permit – submit annual update (Note: update schedule may differ)
DTSC	On-site Hazardous Waste Treatment	10/7	Facility Inspection – check storage tank system
Cal/OSHA	Hearing Conservation Program	21/4	Complete annual audiometric testing for employees exposed to noise levels higher than 85 dBA (8-hour Time-Weighted Average)
Cal/OSHA	Respiratory Protection Program	22/5	Complete annual medical examination for employees who use a respirator
Cal/OSHA	Process and Laboratory Ventilation	23/2, 3	Test process tanks and laboratory hood for proper ventilation velocities
Cal/OSHA	Recordkeeping	---	Annual notice to employees of existence, location, and availability of employee exposure and medical records
USEPA, DTSC, Federal OSHA, Cal/OSHA, CUPA, DOT	Employee Training	26/6	Emergency Coordinator Training – annual refresher training

PERIODICALLY

Date	Agency	Program	Program/ Question	Scheduled Task
January 31	Cal/OSHA	Recordkeeping	---	Post Annual Summary of Occupational Illnesses and Injuries during the month of February
March 1	DTSC	On-site Hazardous Waste Treatment	10/2	Tiered Permit – submit annual Facility-Specific Notification on agency forms
March 1	DTSC	On-site Hazardous Waste Treatment	10/4	Closure Plan – adjust closure cost estimate
March 1 of Even Number Years	USEPA, DTSC	On-site Hazardous Waste Treatment	10/9	Biennial Report – submit completed report on agency forms, if required (Note: forms are updated each reporting period)
June 1	RWQCB	Storm Water Pollution Prevention	15/8	Facility Inspection & Plan Review – conduct annual inspection of storm water structures and evaluation of SWPP Plan
July 1	USEPA	Multimedia Reporting (Form R)	12/1	Form R Reporting – submit completed report on agency forms, if required (Note: forms are updated each reporting period)

PERIODICALLY (continued)

Date	Agency	Program	Program/ Question	Scheduled Task
July 1	RWQCB	Storm Water Pollution Prevention	15/9	Annual Report – submit completed annual report on agency forms, if required (Note: facility may be included in a Group Monitoring Plan)
September 1 Every 4 Years (99, 03, 07…)	DTSC	Waste Minimization Reporting	13/1	Evaluation & Plan, and Performance Report – update the Plan and Report every 4 years, if required
September 1 Every 4 Years (99, 03, 07…)	DTSC	Waste Minimization Reporting	13/2	Waste Audit Study & Compliance Checklist – update the Waste Audit Study & Compliance Checklist every 4 years, if required
September 1 Every 4 Years (99, 03, 07…)	DTSC	Waste Minimization Reporting	13/3	Summary Progress Report – update the Summary Progress Report every 4 years and submit it to DTSC, if required
October 1 – May 31	RWQCB	Storm Water Pollution Prevention	15/7	Storm Water Sampling and Analysis – take samples of storm water from two storm events and have analyzed for required contaminants (Note: facility may be include in a Group Monitoring Plan)
Each Batch or Amount of Hazardous Waste Treated	DTSC	On-site Hazardous Waste Treatment	10/8	Log each batch or amount of hazardous waste treated on site

Agency Codes:

CUPA	Certified Unified Program Agency
DOT	U.S. Department of Transportation
DTSC	California Department of Toxic Substances Control
OSHA	Occupational Safety and Health Administration (Federal OSHA and Cal/OSHA)
POTW	Publicly Owned Treatment Works (Sewer Authority)
RWQCB	Regional Water Quality Control Board
USEPA	U.S. Environmental Protection Agency

Table of Contents

Self-Audit Procedures: *(See Procedure 2.2 for further instructions). The following checklist should be used as an aid in reviewing your facility's compliance with industry environmental and health & safety regulations and requirements. The listed references (column 6) provide additional information as to the specific requirements for each program. Reference documents may be available through your association. Column 7 (Status/Notes) should be used to document your compliance.*

Pollution prevention (P2) items have been strategically placed near the beginning of the checklist. By completing the P2 items first, a facility may realize compliance with other regulatory programs by simply instituting good waste minimization practices.

Additional Information: *This checklist is based on the current laws and regulations as of the date of publication. Regulations frequently change. Therefore, you should review current laws and regulations for any recent changes in the requirements. Some of the items you should check include:*

- *Title 8, California Code of Regulations, Division 1, Chapter 4, Subchapter 7 (California Occupational Safety and Health Administration – Cal/OSHA) – General Industrial Safety Orders*
- *Title 22, California Code of Regulations, Division 4.5 (California Department of Toxic Substances Control) – Environmental Health Standards for the Management of Hazardous Waste*
- *California Health & Safety Code, Chapter 6.95 and Local Certified Unified Program Agency (CUPA) Requirements – Hazardous Materials Business Plan and Accidental Release Prevention Program*
- *Local Sewer Authority – Industrial Wastewater Discharge*
- *South Coast Air Quality Management District – Air Pollution Control Rules*
- *Regional Water Quality Control Board – Storm Water Pollution Prevention Plan and Monitoring Program*
- *Internet:*
  - *DTSC – http://www.dtsc.ca.gov/*
  - *SCAQMD – http://www.aqmd.gov/*
  - *SWRCB – http://www.swrcb.ca.gov/*
  - *OES – http://www.oes.ca.gov/*
  - *USEPA – http://www.epa.gov/*
  - *Fed/OSHA – http://www.osha.gov/*
  - *Cal/OSHA – http://www.dir.ca.gov/occupational_safety.html*
  - *NMFRC – http://www.nmfrc.org/*

Additional Requirements: *In addition to recent changes in the requirements, you should also consider additional Cal/OSHA standards that might apply to your facility. Regulatory information may be found in Title 8 California Code of Regulations. These might include any of the following:*

- *Employer postings; ergonomics; process safety management; use of asbestos, formaldehyde, or lead containing substances; bloodborne pathogens; welding operations; use of compressed air and gases; boiler operations; use of power tools, hoists and grinding equipment; spray coating; elevated platforms; aisleway, ramp, door and exit requirements; fire sprinkler requirements; and seismic requirements.*

Legal Authority: *The compliance requirements provided on the following pages are taken from the respective laws and regulations, as indicated in the "References" column. In addition to the statutory and regulatory requirements, some compliance items that reflect improved and accepted management practices have been included. These management practices have been included because of their overall industry acceptance and their potential to reduce environmental risk and improve compliance.*

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
1. EH&S Program Administration	All	1. Has a Program Administrator been assigned to oversee all EH&S activities for the facility? It is a good policy to have one person assigned this responsibility.					
2. Pollution Prevention	DTSC, POTW, USEPA	1. Has the facility installed rinsewater reuse and reduction measures: A. Flow restrictors B. Countercurrent rinses C. Spray rinses D. Dragout rinses E. Timer flow controls F. Conductivity flow controls G. Reuse of rinsewater in scrubber H. Recapture of dragout rinsewater I. Improved rinsewater agitation 2. Has the facility instituted the practice of optimizing bath use: A. Filtration of bath B. Bath change by analysis C. New chemistry to reduce waste D. Evaporation to concentrate waste 3. Has the facility instituted practices to reduce dragout: E. Operate bath at low end of concentration F. Increase bath temperature G. Drip bars H. Slower workpiece removal I. Spray rinses over process tanks J. Air knives K. Coated racks L. Drain boards				- Local Ordinances - 22 CCR §67100.1-.14 - DTSC and USEPA P2 Documents* - **DTSC Document #402 (*Hazardous Waste Minimization Checklist & Assessment Manual for the Metal Finishing Industry*)** - POTW P2 Documents - EMS Form -- EMS Checklist	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
2. Pollution Prevention (continued)	DTSC, POTW, USEPA	4. Has the facility instituted practices to improve waste treatment: A. Improved treatment chemistry B. Flow equalization C. Batch treatment				- Local Ordinances - 22 CCR §67100.1-.14 - DTSC and USEPA P2 Documents* - **DTSC Document #402 (*Hazardous Waste Minimization Checklist & Assessment Manual for the Metal Finishing Industry*)** - POTW P2 Documents - EMS Form - EMS Checklist	
3. Emergency Response	CUPA, DTSC, DOT, OSHA, USEPA	a. Has the facility prepared a written *Emergency Response Plan* that includes *Emergency Procedures* and the information listed below? All employees should be trained in emergency procedures. b. Have *Emergency Coordinators* been designated for response to emergency incidents? Responsible staff members should be trained for emergencies. c. Has the facility prepared a *Facility Evacuation Map* that clearly shows evacuation routes? Is the map posted throughout the facilities? Employees should be trained in evacuation procedures and evacuation drills should be conducted.				-- H&SC §25500 -- 29 CFR 1910.120 -- 22 CCR §66265.52 -- 8 CCR §5192 **-- CUPA HMBP*** -- EMS Form -- EMS Form	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
3. Emergency Response (continued)	CUPA, DTSC, DOT, OSHA, USEPA	d. Have *Emergency Telephone Numbers* been documented for Emergency Coordinators, emergency services agencies and companies, and senior facility staff? The list should be posted in the facility.				-- EMS Form	
		e. Has a list of *Emergency Equipment* been prepared for the facility?				-- EMS Form	
		f. Have arrangements been made with *Emergency Services Companies* to provide emergency response? Written agreements should be obtained.				-- EMS Form	
		g. Has the facility assembled and *Inventory of Hazardous Materials* to be made available in the event of an emergency? If the facility has prepared a Hazardous Materials Inventory Statement, include a copy of it with your Emergency Response Plan.				-- EMS Form	
		h. Has the facility prepared an *Emergency Action Plan* that discusses procedures to follow in an emergency? This plan may be included in the facility's Emergency Response Plan				-- 8 CCR §3220	
		i. Has the facility prepared a *Fire Prevention Plan* that discusses methods to prevent fires in the facility? This plan may be included in the facility's Emergency Response Plan.				-- 8 CCR §3221	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
4. Hazardous Materials Storage Permit	Local Agency	1. Has the facility submitted a *Hazardous Materials Storage Permit* application, if required? Some local agencies may include this permit with their Hazardous Materials Business Plan requirement or their CUPA registration.				- Local Ordinances – (typically Fire Dept or local CUPA)	
5. Hazardous Materials Business Plan (HMBP)	CUPA or Local Agency, OES	1. If the facility uses more than the threshold quantities of hazardous material, has the facility submitted a *Hazardous Materials Business Plan* (HMBP) to the local governing agency? Threshold quantities are 500 pounds, 55 gallons, or 200 cubic feet of hazardous materials at any one time during the year. 2. Has the facility *updated the HMBP* as required or annually? A revised HMBP must be submitted to the local agency within 30 days when material quantities increase by 100% or any new material, or annually.				- H&SC §25500 - OES HMBP Forms* **- Local Agency HMBP Forms*** - EMS Checklist	
6. Accidental Release Prevention (CalARP)	CUPA or Local Agency, OES	1. If the facility uses listed acutely hazardous materials above threshold quantities, has the facility submitted a *CalARP Registration* form? 2. If required by the local agency, has the facility submitted a *Risk Management Plan* (required 6/21/99)?				-- H&SC §25531 **-- CUPA Registration Form*** **- OES RMP Guidance Document***	
7. Industrial Wastewater Discharge	POTW	1. If the facility discharges treated industrial wastewater to the sewer, has the facility submitted a *Wastewater Discharge Permit Application* to the local POTW? 2. Has the facility ensured compliance with its wastewater discharge permit by: A. Notifying the local POTW of any new or modified processes or discharge sources B. Confirming sampling point(s) complies with federal and local requirements C. Confirming sampling methods comply with federal and local requirements				**- Local Industrial Discharge Ordinance and Permit Application*** - 40 CFR §403*	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
7. Industrial Wastewater Discharge (continued)	POTW	2. Has the facility ensured compliance with its wastewater discharge permit by: D. Ensuring the facility's solvent management and slug control plans are effectively implemented E. Ensuring industrial wastewater discharge includes no diluting streams F. Ensuring wastewater treatment operators are properly trained to assess the performance of the facility's wastewater treatment system 3. Has the facility completed required sampling and analysis of industrial wastewater? 4. Has the facility submitted a *Periodic Report of Continued Compliance (PRCC)* or *Self Monitoring Report (SMR)* on the established submittal schedule?				- 40 CFR §403* **- Local POTW PRCC/SMR forms***	
8. Hazardous Waste Activity Registration	DTSC, USEPA	1. Has the facility completed a *Hazardous Waste Activity* form that correctly reflects the waste generation at the facility?				**- EPA Form 8700-12**	
9. Local Hazardous Waste Generator Permit	Local Agency	1. If required by a local agency, has the facility completed and submitted a local *Hazardous Waste Generator's Permit Application*?				- Local Ordinance	
10. On-Site Hazardous Waste Treatment (Tiered Permit)	CUPA, DTSC	1. If the facility treats hazardous waste onsite, has the facility prepared and submitted an *Onsite Hazardous Waste Treatment Notification Form* (Tiered Permit)? 2. Has the facility completed all annual updates to the *Onsite Hazardous Waste Treatment Notification Form*? Updates are due to DTSC by March 1. 3. Has the facility prepared a *Waste Analysis Plan*?				- 22 CCR §67450.1-.13 **- DTSC Form 1772*** - EMS Checklist	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
10. On-Site Hazardous Waste Treatment (Tiered Permit) (continued)	CUPA, DTSC	4. Has the facility prepared a *Closure Plan* and updated the *Closure Cost Estimate* annually or as required? 5. Has the facility completed a *Tiered Permit Phase I Environmental Assessment*? 6. Has the facility completed a *Contingency Plan*? (May be part of Emergency Response Plan) 7. Has the facility completed and recorded *Facility Inspections*? 8. Has the facility recorded all quantities of hazardous waste treated? 9. Has the facility completed and submitted *Biennial Reports*, if a Large Quantity Generator? The Biennial Report must be submitted to USEPA and/or DTSC on agency forms each even numbered year by March 1.				- 22 CCR §67450.3(a)(13)(B) - 22 CCR §67450.7 - **DTSC Form 1151*** - 22 CCR §66265.52 - 22 CCR §66265.15(b) - **USEPA Biennial Report Booklet***	
11. Hazardous Materials and Hazardous Waste Storage	DTSC, CUPA or Local Agency, OSHA	1. Are all containers of hazardous materials and hazardous waste properly segregated? 2. Are all containers of hazardous materials and hazardous waste closed, except during dispensing? 3. Are all hazardous materials and hazardous waste containers in good condition? 4. Are all containers of hazardous waste stored inside secondary containment? 5. Are all containers of hazardous waste properly labeled with a Hazardous Waste Label, which includes the accumulation start time (limit is 90 days)?				- 22 CCR §66264.170-178 - 8 CCR §5164 - Local Ordinances - EMS Checklist	
12. Multimedia Reporting (Form R)	USEPA	1. Has the facility completed and submitted *Toxic Release Inventory (Form R) Reports*, if the facility processes or uses more than the threshold quantities of listed materials. The Form R Report must be submitted to USEPA each year by July 1.				-- **USEPA Form R Booklet***	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
13. Waste Minimization Reporting (SB-14)	DTSC, CUPA	1. If the facility generates more than 12,000 Kg of hazardous waste, or 12 Kg of extremely hazardous waste, has the facility prepared a *Source Reduction Evaluation and Plan and Performance Report* (SB-14)? The documents must be updated every four years by September 1 (1999, 2003…) 2. If the facility is a small business, has the facility prepared an industry-specific *Waste Audit Study* or a *Source Reduction Compliance Checklist*? The documents must be updated every four years by September 1 (1999, 2003…) 3. If captured by SB-14, has the facility prepared a *Summary Progress Report* that summarizes the results from previously implemented source reduction methods, and estimates future anticipated source reduction achievements. This document must be SENT to DTSC every four years by September 1 (1999, 2003…)				- 22 CCR §67100.1-.14 - H&SC 25244.12-.23 **- Hazardous Waste Source Reduction Guidance Manual*** - California Government Code Article 2, Section 11342 **- Hazardous Waste Source Reduction Compliance Checklist***	
14. Air Pollution Control	CARB, SCAQMD	1. If the facility emits any hazardous substance above emission standards, has the facility submitted an *Air Pollution Control Permit Application*? 2. If the facility performs electrolytic chrome plating or chromic acid anodizing: A. Facilitywide chromium emissions are less than 2 lbs/year: 1. Has the facility added anti-mist additive to each process tank, or installed other control equipment to reduce tank emissions by at least 95%, or 2. Has the facility reduced emissions from the emissions collection system to less than 0.05 mg/amp-hr for decorative chrome plating and less than 0.15 mg/amp-hr for hard chrome plating or chromic acid anodizing?				- H&SC §42300 **- SCAQMD Rule 201 and Permit Application Forms** - SCAQMD Rule 1469	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
14. Air Pollution Control (continued)	CARB, SCAQMD	2. If the facility performs electrolytic chrome plating or chromic acid anodizing: B. Facilitywide chromium emissions are between 2 and 10 lbs/year: 1. Has the facility added anti-mist additive to each process tank, or installed other control equipment to reduce tank emissions by at least 99%, or 2. Has the facility reduced emissions from the emissions collection system to less than 0.03 mg/amp-hr? C. Facilitywide chromium emissions are greater than 10 lbs/year: 1. Has the facility added anti-mist additive to each process tank, or installed other control equipment to reduce tank emissions by at least 99.8%, or 2. Has the facility reduced emissions from the emissions collection system to less than 0.006 mg/amp-hr? D. Has the facility maintained records of: 1. Written Compliance Plan 2. Anti-mist additive concentrations for each tank? 3. Daily log of ampere-hours applied to each tank? 4. Records maintained for 2 years?				- SCAQMD Rule 1469	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
14. Air Pollution Control (continued)		3. If the facility performs solvent degreasing operations: A. Are containers and equipment free of cracks, holes, defects, or leaks? B. Is the parts degreasing process performed in a manner that minimizes solvent emissions and in accordance with SCAQMD rules? C. Is the design and maintenance of the degreasing equipment in accordance with SCAQMD rules? D. Are environmental controls properly implemented to maintain proper ventilation and minimize exposure? Are solvent use records maintained in accordance with SCAQMD rules?				-- SCAQMD Rule 1122	
		4. If the facility performs solvent cleaning operations: A. Do the solvents used comply with SCAQMD Rule 1171 standards? B. Is the use of solvents by one of SCAQMD approved methods? C. Are all VOC-containing solvents properly stored and disposed of in accordance with SCAQMD Rule 1171? D. Are emission collection and control systems designed and operated in accordance with SCAQMD Rule 1171? E. Are records maintained in accordance with SCAQMD rules?				-- SCAQMD Rule 1171	

15. Storm Water Pollution Prevention (SWPP)	SWRCB, RWQCB	1. If the facility has industrial activity exposed to storm water, has the facility submitted a *Notice-Of-Intent* to SWRCB? 2. Has the facility prepared a *Storm Water Pollution Prevention Plan* 3. Has the facility prepared a *Monitoring Program* (or is the facility covered under a Group Monitoring Plan)? 4. Has the facility implemented its SWPP Plan best management practices in accordance with its implementation schedule? 5. Has the facility completed its Non-Storm Water Discharge Visual Observations quarterly? 6. Has the facility completed its Storm Water Discharge Visual Observations monthly during the wet season? 7. Has the facility completed its Storm Water Sampling twice during the wet season? 8. Has the facility completed its annual review of its SWPP? This review must be documented and submitted with the Annual Report to RWQCB. 9. Has the facility submitted its *Annual Storm Water Report* to RWQCB each year? The Annual Report must be submitted to RWQCB annually by July 1.				-- State Water Resources Control Board Order 97-03-DWQ* **-- Forms are provided in the SWRCB SWPP Packet*** **-- Annual Report forms are provided in the SWRCB SWPP Packet**	

16. Injury and Illness Prevention Plan (SB-198)	OSHA	1. Has the facility prepared an *Injury and Illness Prevention Plan* in accordance with OSHA guidelines? 2. Does the company provide a method for communication of workplace hazards with its employees (e.g. committees or safety suggestion box)? 3. Has the company evaluated its facility for workplace hazards? 4. Does the facility perform routinely scheduled safety inspections of its facility? 5. Has the facility prepared *Codes of Safe Practice* for its employees and their jobs? 6. Has the facility investigated all workplace injuries and illnesses? 7. Has the facility corrected all hazardous conditions? 8. Has the facility maintained records of hazard assessments, inspections, and employee safety training?				- 8 CCR §3203 **- Cal/OSHA Guidance Document*** - EMS Form - EMS Form - EMS Form - EMS Form - EMS Form	
17. Hazard Communication	OSHA	1. Has the facility prepared a written *Hazard Communication Program*? 2. Has the facility prepared an inventory of hazardous chemicals used at the facility? An HMBP Hazardous Materials Inventory Statement may meet this requirement. 3. Has the facility provided Materials Safety Data Sheets for its employees for the chemicals used in the Facility? 4. Are all containers of hazardous chemicals properly labeled with the chemical name and hazard warnings?				- 8 CCR §5194 **- Cal/OSHA Guidance Document***	
18. Safe Drinking Water and Toxic Enforcement Act (Prop 65)		1. If the facility has any Prop 65 listed chemical, does the facility provide warnings to its employees and the community? Warning signs should be placed at business entrances and in work areas.				- H&SC §25249.5-.13	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
19. Energy Control Program (Lockout/ Tagout)	OSHA	1. Does the facility have a written *Energy Control Program* for the control of energy during servicing and maintenance of machines and equipment? 2. Has the facility developed *Lockout/Tagout* procedures for its machinery and equipment? Written procedures should be prepared for appropriate machinery and equipment. 3. Does the facility have a supply of locks and tags to implement the Lockout/Tagout				- 29 CFR §1910.147 - 8 CCR §2320, 3314, and 6004 **- Cal/OSHA Guidance Document*** - EMS Form	
20. Confined Spaces	OSHA	1. Has the facility prepared written procedures for entry into confined spaces? 2. Has the facility marked areas or equipment that are confined spaces?				- 29 CFR §1910.146 - 8 CCR §5156, 5157, and 5158 **- Cal/OSHA Guidance Document*** - EMS Form	
21. Hearing Conservation	OSHA	1. If the facility has noise levels above 85 decibels (TWA[4]), has the facility prepared a *Hearing Conservation Program*? 2. Has the company conducted area noise sampling to determine noise levels? 3. Has the facility conducted baseline testing of employees exposed to noise levels above 85 dBA? 4. Has the facility conducted annual audiometric testing for employees exposed to noise levels higher than 85 dBA (TWA)?				- 29 CFR §1910.95 - 8 CCR §5095-5100 **- Cal/OSHA Guidance Document*** - EMS Form	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
22. Respiratory Protection	OSHA	1. If employees are exposed to hazardous chemicals above their permissible exposure limit, has the facility prepared a written *Respiratory Protection Program*? 2. Has the facility conducted air sampling to determine need for respirator use? 3. If respirators are required for employees, have the employees been fit tested for respirator use? 4. If respirators are required for employees, have the employees been instructed in the proper use and maintenance of their respirator? 5. Have employees who use a respirator completed an annual medical examination?				- 29 CFR §1910.134 - 8 CCR §5144 - **Cal/OSHA Guidance Document*** - EMS Form - EMS Form	
23. Process and Laboratory Ventilation	OSHA	1. If process tanks emit gases, vapors, or mists of hazardous chemicals above permissible exposure limits, has the facility provided process tank ventilation? 2. Has the facility periodically tested and recorded process tank ventilation air velocities? A periodic testing of process tank ventilation (e.g. semiannually) should be established to confirm ventilation air velocities meet design and performance requirements. 3. If the facility has a laboratory hood, has the facility tested the face velocity of the hood to confirm compliance? A periodic testing of laboratory hoods should be established to confirm ventilation face velocities meet design and performance requirements.				- 8 CCR §5154 - EMS Form - 8 CCR §5154.1 - EMS Form	
24. Chemical Hygiene Plan	OSHA	1. If the facility has a laboratory, has the facility prepared a written *Chemical Hygiene Plan*? 2. Has the facility implemented all segments of the Chemical Hygiene Plan (MSDSs, exhaust hood measurements, inspections, etc.)?				- 8 CCR §5191	

Program	Agencies [2]	Check	Yes	No	%	References [3]	Status/Notes
25. Personal Protective Equipment	OSHA	1. Has the company assessed the hazards of each job for personal protection requirements?				- 8 CCR §3203, 3380-3400 - EMS Form	
26. Employee Training	All	1. Has the facility completed and recorded Right-To-Know, Hazard Communication, General Health & Safety, and job specific training for all of its employees? 2. Has the facility completed and recorded Hazardous Materials Handling training for its employees that handle hazardous materials? 3. Has the facility completed and recorded Hazardous Materials Transportation training for its employees that are involved in hazardous materials transportation related jobs? 4. Has the facility completed and recorded Hazardous Waste Handling training for its employees that handle hazardous waste? 5. Has the facility completed and recorded Hazardous Waste Treatment training for its employees that treat hazardous waste? 6. Has the facility completed and recorded Emergency Coordinator training for its employees that serve as emergency coordinators? 7. Has the facility completed and recorded periodic (e.g. monthly) safety training for all of its employees?				- H&SC §25500 - 29 CFR §1910.120 - 29 CFR §1910.1200 - 49 CFR §172.700 - 22 CCR §66265.16 - 8 CCR §3202 - 8 CCR §5192 - Cal/OSHA Guidance Documents* - EMS Checklist - EMS Form	
27. Facility Inspections	All	1. Has the facility completed and recorded the required facility inspections?				- Local Ordinances - CUPA HMBP* - 22 CCR §66265.15(b) - 8 CCR §3203 - State Water Resources Control Board Order 97-03-DWQ* - EMS Checklist - EMS Form	

Footnotes:

2 Agency/Association Abbreviations:

CARB	California Air Resources Board
CUPA	Certified Unified Program Agency
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency (USEPA and Cal/EPA)
NMFASC	Metal Finishing Association of Southern California
NMFRC	National Metal Finishing Resource Center
OES	Office of Emergency Services (State)
OSHA	Occupational Safety and Health Administration (Cal/OSHA and Federal OSHA)
POTW	Public Owned Treatment Works (Local Sewer Department)
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SWRCB	State Water Resources Control Board

3 References shown with an asterisk are available from MFASC. References shown in **bold** are the primary reference for support materials.

4 TWA means time-weighted average.

Environmental Management System

EMS Forms & Checklists

Program	Item	Requires…	
		Form	Checklist
2. Pollution Prevention	P2 Audit Checklist		✓
2. Pollution Prevention	P2 Project Payback Calculation Form	✓	
3. Emergency Response	Posting Form: Emergency Coordinator Information	✓	
3. Emergency Response	Posting Form: Evacuation Map	✓	
3. Emergency Response	Emergency Telephone Numbers	✓	
3. Emergency Response	Emergency Equipment	✓	
10. On-Site Hazardous Waste Treatment	Program Completion Checklist (notification, waste analysis plan, closure plan, phase I assessment, emergency response plan, facility inspections, reports, etc.)		✓
14. Air Pollution Control	EMS forms and checklists for the inspection and recordkeeping as required by SCAQMD rules	✓	✓
15. Storm Water Pollution Prevention	Non-storm water visual observation	✓	
15. Storm Water Pollution Prevention	Storm water discharge visual observation	✓	
15. Storm Water Pollution Prevention	Storm water sampling and analysis	✓	
16. Injury and Illness Prevention Plan	Emergency incident investigation form	✓	
16. Injury and Illness Prevention Plan	Workplace hazard form	✓	
16. Injury and Illness Prevention Plan	Safety meeting record form	✓	
19. Energy Control Program	Lockout/tagout procedures form	✓	
20. Confined Spaces	Confined space entry permit form	✓	
21. Hearing Conservation	Area noise sampling form	✓	
22. Respiratory Protection	Respirator fit test form	✓	
23. Process and Laboratory Ventilation	Process tank ventilation measurement form	✓	
23. Process and Laboratory Ventilation	Laboratory hood ventilation measurement form	✓	
25. Personal Protective Equipment	Workplace hazard assessment form	✓	
26. Employee Training	Employee training record form	✓	
27. Facility Inspections	Facility inspection form	✓	

Environmental Management System

Emergency Coordinators

Contact	Name/Address	Work Phone	Pager	Home Phone
PRIMARY				
1ST ALTERNATE				
2ND ALTERNATE				
3RD ALTERNATE				

Emergency Reporting

In the case of a Fire or Emergency call 911 and give the following information: "My name is *[your name]*. I am calling from *[company name]*, at *[address of company]*, in *[city or area]*. We have an emergency (specify the type of emergency). The closest cross-street is *[cross-street]*. Someone will be waiting in front of the building to offer directions when you arrive. I am at this phone number: *[company phone number]*."

Environmental Management System

Emergency Telephone Numbers

FEDERAL/NATIONAL

Agency	Telephone
CHEMTREC – Chemical Transportation Emergency Center	(800) 424-9300
National Response Center	(800) 424-8802
US EPA SARA Title III Hotline	(800) 535-0202
US EPA RCRA Hotline	(800) 424-9346
US EPA – Region IX	(415) 744-2000
US Department of Transportation Hotline	(800) 752-6367

STATE

Agency	Telephone
Office of Emergency Services – OES	(800) 852-7550
Department of Toxic Substances Control – Headquarters – Sacramento	(916) 445-4171
California Highway Patrol – Hazardous Materials Section	(916) 327-3310

COUNTY/LOCAL AREA

Agency	Telephone
Department of Health Services	
Air Quality Management District	
Regional Water Quality Control Board	
Department of Toxic Substances Control	

CITY/LOCAL

Agency	Telephone
Fire Department	
Police Department	
Water Quality Control Plant (POTW)	

Emergency Equipment

Qty	Unit	Item Description	Location

Environmental Management System

Non-Storm Water Visual Observation

Requirements

- Visually observe all drainage areas for the presence of unauthorized non-storm water discharges.
- Frequency: Quarterly, during daylight hours, on days with no storm water discharges, during scheduled facility operating hours, conducted within 6-18 weeks of each other.
- Locations: (1) NSW-01 – _____
  (2) NSW-02 – _____
  (3) NSW-03 – _____
  (4) NSW-04 – _____
  (5) NSW-05 – _____
- Observation: Presence of any discolorations, stains, odors, floating materials, and the source of any discharge.

_____ _____
Observed By *Date*

_____ _____
Title *Time*

Location	Discharge Observed?	Indications of Prior Discharge?	Observations/Source of Discharge
NSW-01			
NSW-02			
NSW-03			
NSW-04			
NSW-05			

Comments/Corrective Actions Taken:

_____
_____
_____
_____

Environmental Management System

Storm Water Discharge Visual Observation

Requirements

- Visually observe all storm water discharges for the presence of pollutants.
- Frequency: One storm event per month during the wet season (October 1 - May 30), during the first hour of discharge, during daylight hours, during scheduled facility operating hours, storms that are preceded by at least three (3) working days without storm water discharges.
- Locations: (1) SW-01 – Storm Drains

  (2) SW-02 – Roof Downspouts

  (3) SW-03 – Stormwater Culvert
- Observation: Presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, and the source of any pollutants.

_____ _____

Observed By *Date*

_____ _____

Title *Time*

_____ _____

Month *Time Storm Started*

Location	Describe Discharge	Describe Source of Discharge
SW-01 Storm Drains		
SW-02 Roof Downspouts		
SW-03 Stormwater Culvert		

Comments/Corrective Actions Taken:

_____

_____

_____

Environmental Management System

Emergency Incident Investigation

DATE OF INCIDENT	TIME OF INCIDENT	REPORT COMPLETED BY

LOCATION OF INCIDENT

EXTENT OF EMERGENCY

TYPE OF INCIDENT

☐ Fire ☐ Fire/Explosion ☐Chemical Spill ☐Chemical Release To Air ☐ Occupational Accident

CAUSE OF EMERGENCY

☐ Storage Tank/Drum Leak ☐ Process Release/Spill ☐ Fire ☐ Explosion

☐ Other _____

IDENTIFICATION OF HAZARDOUS MATERIAL

Shipping Name _____ UN/NA Number _____

Chemical Name _____

Trade Name _____

Other _____

Physical Description of Material: ☐ Solid ☐ Liquid ☐ Gas ☐ Radioactive ☐ Infectious

IF MATERIAL HAS RUN OFF-SITE, GIVE AMOUNT AND LOCATION

ENVIRONMENT AFFECTED

☐ Storage Area(s)	☐ Roadway (Public)	☐ Bay/Ocean	☐ Agriculture Land
☐ Facility Buildings	☐ Unimproved Shoulder	☐ Coastal Beach	☐ Air Release
☐ Parking Areas	☐ Entered Sewer(S)	☐ Lake/Stream	
☐ Roadway (Private)	☐ Entered Storm Drain(s)	☐ Irrigation Water	

Threat to Environment/Wildlife (explain): _____

_____

HEALTH

☐Yes ☐No Exposure to Employees (#_____)	☐Yes ☐No Employees Injured (#_____)
☐Yes ☐No Exposure to Public	☐Yes ☐No Public Injured
☐Yes ☐No Medical Attention	☐Yes ☐No Hospitalized

EVACUATION NECESSARY

☐Yes ☐No Number of staff evacuated from on-site sources: _____

Number evacuated from offsite sources (if known): _____

Names of Staff Exposed/Injured: _____

Hospital(s) Transported To: _____

Describe Injuries or Exposure (Symptoms): _____

AGENCIES NOTIFIED

ACTIONS TAKEN TO CONTROL PROBLEM

NOTES

Environmental Management System

Workplace Hazard

_____ _____

Date of Inspection *Inspector*

Hazard Type:

- ❑ Hazardous Workplace
- ❑ Hazardous Process
- ❑ Hazardous Equipment
- ❑ Hazardous Procedure

Description of Hazard:

_____

_____

_____

_____

_____

_____

Recommended Corrective Action:

_____

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

❑ Completed _____ _____

Date *Completed By*

Environmental Management System

Safety Meeting Record

_____ _____

Date *Meeting Administrator*

Topics Discussed:

_____

_____

_____

_____

_____

Attendees:

_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*
_____	_____
Name	*Signature*

Environmental Management System

Lockout/Tagout Procedure

Procedure No.	Date
Machine Identification (Description, Model, Serial No., Location)	

Energy Source

Shutdown/Lockout Procedures

Startup Procedures

Affected Employees

Authorized Employees

Environmental Management System

Confined Space Entry Permit

This permit authorizes entry into the described confined space when done so in accordance with the restrictions of the Confined Space Entry procedures and the following additional criteria:

Space to be Entered:	
Purpose of Entry:	
Date of Entry:	Duration of Entry:
Names of Employees Authorized to Enter the Confined Space:	
Name(s) of Safety Attendant(s):	
Name of Entry Supervisor:	Signature of Entry Supervisor:
Hazards of the Confined Space:	
Safety Measures to be Used to Control Hazards Before and During the Confined Space Work Period:	
Acceptable Entry Conditions:	
Results of Atmospheric Testing:	
Rescue and Emergency Services Available:	
Communication Procedures to be Used by Entrants and Attendants:	
Required Personal Protective Equipment for Entrants and Attendants:	
Additional Safety Information:	
Additional Permits Required Before Entry:	

Environmental Management System

Area Noise Sampling

Area	*Job Classification*
Sampled By	*Date*

Area Testing

No.	Sample Location/Task	dBA
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Comments/Notes

Environmental Management System

Respirator Fit Test

_____ _____

Employee Name *Date*

_____ _____

Job Title/Description

Type of Respirator:

No.	Make	Model/Size	Full or Half-Face
1			
2			
3			
4			

Testing Protocol:

❑ Isoamyl Acetate ❑ Saccharin Aerosol ❑ Irritant fume

Cartridge Type: _____

Test Exercises (P=Pass, F=Fail):

	Respirator No.			
	1	2	3	4
Normal Breathing				
Deep Breathing				
Nodding Head				
Read Passage				
Jogging in Place				
Normal Breathing				
Overall				

_____

Employee Signature

_____

Trainer Signature

Environmental Management System

Process Tank Ventilation

_____ _____

Date *Measured By*

Tank No.	Tank Description	Hazardous Substances	Class 8 CCR 5154 (Table V-7/8/9)	Exhaust Velocity (feet per minute)	
				Required	Measured

Environmental Management System

Laboratory Hood Ventilation

_____
Description of Hood

_____ _____ _____
Inspector *Date* *Time*

_____ _____ _____
Temperature *Barometric Pressure* *Velocity Correction*

Diagram of Face of Hood Showing Sampling Areas

Air Velocity Measurements of Sampling Areas

No.	Velocity	No.	Velocity	No.	Velocity
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	

Calculation of Volume Flow Rate

Average Velocity	
Hood Face Area	
Volume Flow Rate	

Environmental Management System

Workplace Hazard Assessment

Area	*Job Classification*
Assessed By	*Date*

Hazard Description

Hazard Category

- ❑ Impact
- ❑ Penetration
- ❑ Compression (Roll-Over)
- ❑ Chemical
- ❑ Heat
- ❑ Harmful Dust
- ❑ Light (Optical) Radiation

Estimate of Potential Injury

Personal Protective Equipment

Eye and Face: _____

Head: _____

Foot and Leg: _____

Hand and Arm: _____

Torso and Other: _____

Comments/Notes:

Environmental Management System

Employee Training Record

_____
Employee Name

_____
Job Title/Description

_____ _____ _____
Training Date *Hours of Training* *Instructor Name*

[Check boxes for training received]

ALL EMPLOYEES

- ❑ RIGHT-TO-KNOW / HAZARD COMMUNICATION
  Hazard Communication, Container Labeling, Material Safety Data Sheets
- ❑ GENERAL HEALTH & SAFETY
  Emergency Procedures and Evacuation, Injury and Illness Prevention Plan, Hearing Conservation, Confined Spaces, Lockout/Tagout, General Safety Rules, Codes of Safe Practice, Fire Prevention, Chemical Hygiene
- ❑ JOB SPECIFIC TRAINING
  Duties, Hazardous Materials, Workplace Hazards, Codes of Safe Practice, and Personal Protective Equipment Related to Employee's Specific Job Assignment

PROCESS EMPLOYEES

- ❑ HAZARDOUS MATERIAL HANDLING
  Hazardous Chemicals, Personal Protective Equipment, Hazardous Materials Handling, Incompatible Materials, Spill Cleanup
- ❑ HAZARDOUS MATERIAL TRANSPORTATION
  Hazardous Material Classification, Shipping Containers, Labeling and Marking Containers, Shipping Documents, Hazardous Material Handling, Emergency Response
- ❑ HAZARDOUS WASTE HANDLING
  Identifying Hazardous Waste, Handling Hazardous Waste, Labeling Hazardous Waste, Shipping Hazardous Waste, Hazardous Waste Minimization
- ❑ HAZARDOUS WASTE TREATMENT
  Operation of Treatment Facilities, Shutdown of Waste Treatment Facilities, Emergency and Monitoring Equipment, Recordkeeping
- ❑ EMERGENCY COORDINATOR TRAINING
  Emergency Coordinator Authority and Duties
- ❑ RESPIRATOR TRAINING
  Respirator Selection, Use and Limitations of Respirator, Cleaning and Disinfection, Storage, Inspection and Maintenance

_____ _____
Employee Signature certifying receipt of training described above *Date*

_____ _____
Instructor Signature *Date*

Environmental Management System

Facility Inspection

Date of Inspection _____ *Time of Inspection* _____ *Inspector* _____

Circle type of inspection: DAILY WEEKLY MONTHLY ANNUAL

Inspection Item	Frequency				Status	Comments
Loading and unloading areas	**D**					
Freeboard level in uncovered tanks	**D**					
Overfill/spill control equipment	**D**					
Hazardous materials/waste containers	**D**					
Aisle space	**D**					
Incompatible material storage areas	**D**					
Safety suggestion box	**D**					
Hazardous material storage/transfer areas		**W**				
Hazardous material tank systems		**W**				
Hazardous waste treatment areas		**W**				
Storm water management structures		**W**				
Employer notices			**M**			
Posting of evacuation map/ phone numbers			**M**			
Material safety data sheets			**M**			
Hazardous material/waste containers/labels			**M**			
Emergency alarms			**M**			
Fire extinguishers			**M**			
Emergency equipment and supplies			**M**			
Process area ventilation			**M**			
Housekeeping			**M**			
Employer posters and accident forms				**A**		
Emergency Response Plan review				**A**		
Hazardous material storage tanks				**A**		

FREQUENCY: D-Daily, W-Weekly, M-Monthly, A-Annual

ELEMENT 2.3

OBJECTIVES AND TARGETS

After you identify the facility's environmental aspects and impacts and regulatory compliance [ISO/PT-1] requirements, objectives and targets should be established for the EMS. An **objective** is a facility goal that is consistent with the company's environmental policy, priority environmental aspects and impacts, and applicable environmental regulations. A **target** is a more detailed performance requirement [ISO-1] related to and supporting a specific objective. In other words, specific targets must be met for an objective to be achieved.

Examples

Objective	Target
Reduce hazardous wastewater treatment sludge (F006) generation	• Reduce dragout from nickel plating baths by 25% within 18 months
Improve chrome emission compliance	• Continuously train 100% of chrome platers about chrome emission control procedures and recordkeeping
Eliminate cyanide from all plating operations	• Pilot test three non-cyanide chemistries within 12 months
Improve employee awareness of environmental issues and costs	• Hold bimonthly training courses • Train 100% of employees within 12 months
Reduce energy consumption	• Reduce electricity use 15% within 12 months • Reduce natural gas use 10% within 12 months
Improve compliance with wastewater discharge permit limits	• Zero permit violations by December 1999
Use process water more efficiently	• Reduce water consumption by 20% within 12 months • Continuously train all platers in good rinsing techniques

[ISO/PT-1] **Add:** "and other voluntary"

[ISO-1] **Add:** "quantifiable where practicable"

The objectives and targets represent the transition from planning to action. The objectives and targets will drive many other EMS elements, particularly measurement and monitoring activities. For this reason, they should be carefully expressed and effectively communicated to all facility workers. In addition, input from facility workers is critical in developing objectives and targets that are meaningful and practical. Reviewing the objectives and targets at regular intervals provides a good opportunity to gauge progress, cost savings, and improved environmental performance. ISO-1 PT-1

Targets should be:

- Quantitative
- Realistic
- Linked to a source (of the waste or environmental aspect)
- Measurable

There is one EMS procedure and several EMS tools associated with the objectives and targets element. The procedure, *2.3 Objectives and Targets,* describes the process your facility should follow to develop and update its environmental objectives and targets. The EMS tools that support this procedure include a matrix that facilitates and documents the process of developing objectives, targets associated with those objectives, and parameters that will be measured to track progress made to meet the objective.

Objectives and targets originate from:

- Environmental Policy
- Aspects and Impacts Review
- Compliance Checklist
- Corrective and Preventive Action

ISO-1 **Add:** "Those responsible for setting objectives and targets should consider significant aspects, legal and other requirements, technical options, financial, operational, and business requirements, and the views of interested parties."

PT-1 **Add:** "Additionally, the facility should consider preventing non-compliance, preventing pollution at its sources, minimizing cross-media pollutant transfers, and improving environmental performance."

	EMS Procedure	**2.3**
	Effective Date	
Company Name	Subject	**Objectives and Targets**

Purpose This procedure is used to develop and update the objectives and targets that are addressed by the EMS.

Step 1 The environmental manager and other facility personnel selected by the environmental manager are responsible for developing the objectives and targets for the EMS.

Objectives are [ISO-1] facility goals that are consistent with the company's environmental policy, priority environmental aspects, and applicable environmental regulations.

Targets are detailed performance requirements related to and supporting a specific objective. Targets should be quantitative, realistic, linked to the source, and measurable.

Step 2 Objectives and targets will be developed and documented using the Objectives and Targets tools: S*ummary of EMS Objectives and Targets* and *Actions Planned and Taken to Achieve Objectives and Targets*.

Step 3 Objectives and targets will be supported and tracked according to procedures described in *Element 4.1, Measurement and Monitoring*.

Step 4 The impact of corrective and preventive actions on objectives and targets will be evaluated and documented according to the schedule specified in the EMS.

Step 5 The environmental manager and other facility personnel will review and update the environmental objectives and targets according to the schedule specified in the EMS.

Step 6 Objective and target documentation will be retained at the facility in accordance with the company or EMS specific record retention policy." [ISO/PT-1]

[ISO-1] **Add:** "quantifiable"

[ISO/PT-1] **Add: "Step 7** Establish and maintain Environmental Management Programs (EMPs) for achieving objectives and targets. The EMPs should designate responsibility and establish means and time frame. New projects should be reviewed to ensure that environmental management applies to such projects."

Responsible Person:	_____
Signature and Date:	_____

Summary of EMS Objectives and Targets

Objective	Target and Deadline
1.	
2.	
3.	
4.	
5.	

Objective and Target #_____
Action Plan

OBJECTIVE: _____

TARGET: _____

BASELINE: _____

DEADLINE: _____

Tracking Parameter	Measurement Frequency

ACTIONS PLANNED AND TAKEN

Consider what type of actions you are evaluating to achieve targets for objectives. Are there pollution prevention alternatives such as source reduction, material substitution, in-process recycling, or waste minimization that could achieve your objectives and targets? Try to find an action that addresses the pollution source most directly.

What type of action?
- ☐ Source Reduction
- ☐ Material Substitution
- ☐ In-Process Recycling
- ☐ Reuse
- ☐ Improved Treatment
- ☐ Waste Treatment
- ☐ Compliance

Action 1: _____

Deadline: _____ Responsible Person: _____

Action Taken: _____

Action 2: _____

Deadline: _____ Responsible Person: _____

Action Taken: _____

Action 3: _____

Deadline: _____ Responsible Person: _____

Action Taken: _____

Action 4: _____

Deadline: _____ Responsible Person: _____

Action Taken: _____